Aspects of an Industry No. 21

THE DISPENSARY

THE part played by the British chemical industry in the discovery and preparation of healing drugs and specifics is fundamental. It is not perhaps as obvious. That is, people do not readily associate the soda bicarbonate they buy, or the sulphanilamides that the doctor prescribes, with the limestone, salt and coal which are the raw materials of the great chemical factories. The apothecaries of old made their extracts, decoctions and elixirs chiefly from vegetable substances. These were given to patients without any precise knowledge of what their effects would be. About a hundred and fifty years ago the science of pharmacology began to be developed. The pioneers tried out their discoveries on animals and even on themselves. This method of trial and error sometimes had painful results, and one of the fathers of the science, William Alexander of Edinburgh, nearly killed himself. Nowadays the research chemist, the pharmacologist and the medical practitioner work together to perfect new drugs with new effects and special properties. The great majority of these are organic compounds, many of them the result of research in the dyestuffs industry. Suramin, to give one example, a specific for African sleeping sickness, was discovered as a result of the biological examination of dyes related to Congo Red — one of the earliest synthetic dyes, which is still used for the bright garments of the East. Modern drugs are largely synthesised from coal tar, from which substances like benzene, toluene and naphthalene are first obtained. These are next modified and combined with other chemicals by the research chemist. There are few industrial chemicals produced today which are not used at some stage in the preparation of drugs. The chemical industry is the basis on which the British research chemist is building up a constantly increasing supply of new and better drugs.

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